

Atmospheric Concentrations of Semi-Volatile Organic Pollutants on the Tip of the Olympic Peninsula of Washington: Evidence of Trans-Pacific Transport?

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Abstract

Ambient Hi-vol air samples were taken between March 15th and May 30th, 2002, at Cheeka Peak Observatory (CPO), located on the tip of the Olympic Peninsula, Washington State. This sampling campaign was in conjunction with the Inter-Trans Continental Transport (ITCT 2K2) Campaign and the Photochemical Ozone Budget of the Eastern North Pacific Atmosphere (PHOEBA2) experiment. Polycyclic aromatic hydrocarbons (PAHs) and various current-use and historical-use pesticides were detected. The resulting concentrations were correlated to meteorological data, which resulted in strong correlations with temperature and wind speed. The sources of the compounds detected are also discussed; both by the utilization of diagnostic ratios and the back trajectories calculated using HYSPLIT4.

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